

State Water Resources Control Board (SWRCB)**Letter No. 016****Subject:** 8260FAB; GC/MS Analysis of Fuel Oxygenates and Additives plus BTEX**Date:** April 26, 2002**Overview:**

Within the LUST Cleanup program, many soil and water samples are analyzed for VOCs and oxygenates by GC/MS USEPA Method 8260B. Electronic EDF data for these analyses are reported to the SWRCB GeoTracker system as required by AB2886.

For data comparability purposes the SWRCB recommends the following minimal analyte list, spiking compounds, surrogate compounds and reporting limits for this method. This analyte list includes a minimal list of fuel oxygenates and BTEX compounds. USEPA Method 8260B is recommended for analysis of Tert-butyl Alcohol.

Special Conditions:

This applies to all sample matrices.

Areas of Impact:

Field(s): *ANMCODE, PARLABEL*

Entry: *ANMCODE* = "8260FAB" (Volatile Organic Compounds by GC/MS Fuel Additives plus BTEX)
PARLABEL = various; refer to list below

Policy:**a) Quality Control Requirements**

Preparation/analytical batch should include:

- one laboratory method blank
- one matrix spike
- one matrix spike duplicate or one matrix duplicate if target compounds are present
- one blank spike

Control limits for the blank spike/blank spike duplicates are 70% - 130% per SW-846.

8260FAB: Fuel Oxygenates and Additives plus BTEX Minimal List

b) Analytes

“8260FAB” Spiking Compounds¹

PARLABEL	Description
Halogenated Compounds¹	
DCA12	1,2-Dichloroethane ¹
ETHANOL	Ethanol (EtOH) ¹
TBA	tert-Butyl alcohol (TBA) ¹
Aromatic Compounds¹	
BZ	Benzene ^{1,2}
BZME	Toluene ^{1,2}
Oxygenate Compounds¹	
MTBE	Methyl-tert-butyl ether (MTBE) ¹

¹ From Region 4

² Minimum spiking requirements recommended in SW-846

“8260FAB” Analytes and Detection Limits

PARLABEL	Description	Order	Surr.	Water (ug/L)			Soil (ug/kg)	
				MDL	MRL	MCL	MDL	MRL
MTBE	Methyl-tert-butyl ether (MTBE)	1			2			5
ETBE	Ethyl tert-butyl ether (ETBE)	2			2			5
TAME	tert-Amyl methyl ether (TAME)	3			2			5
DIPE	Di-isopropyl ether (DIPE)	4			2			5
TBA	tert-Butyl alcohol (TBA)	5			10			20
DCA12	1,2-Dichloroethane	6			0.5	0.5		1.0
EDB	1,2-Dibromo ethane	7			1			2
ETHANOL	Ethanol (EtOH)	8			1000			1000
BZ	Benzene	9		0.04	0.5	1.0		1.0
BZME	Toluene	10		0.11	1			2
EBZ	Ethylbenzene	11		0.06	1			2
XYLENES	Xylenes	12			3			6
DBFM	Dibromofluoromethane ¹		4					
DCA12D4	1,2-Dichloroethane-d4 ¹		4					
BR4FBZ	4-Bromofluorobenzene ¹		4					
BZMED8	Toluene-d8 ¹		4					

MDL – Method Detection Limit (from SW-846 for wide-bore capillary columns)

MRL – Method Reporting Limit (from Region 4)

MCL – Maximum Contamination Limit (from DHS California Drinking Water Quality Database 01/08/2002)

¹ SW-846 recommended surrogate